

POLISHING METHOD AND POLISHING APPARATUS USED FOR THE SAMEABSTRACT OF THE DISCLOSURE

A method for polishing side faces of grooves formed on a workpiece includes a step of forming the grooves on the workpiece; a step of inserting a polishing element into one of the grooves, the width of the polishing element being smaller than that of the groove, by vertically moving at least one of the workpiece and the polishing element; a step of putting a main surface of the polishing element into contact with a side face of the groove by horizontally moving at least one of the workpiece and the polishing element; and a step of sliding the polishing element along the groove by moving at least one of the workpiece and the polishing element to polish the workpiece by relative movement between the workpiece and the polishing element and by urging the main surface of the polishing element toward the side face of the groove. An apparatus for polishing side faces of grooves formed on a workpiece comprises a fixture for fixing the workpiece; a rotating shaft disposed in a horizontal direction of the fixture; a rotary driving unit for rotating the rotating shaft; a disc polishing element having abrasive grains thereon for polishing the side faces of the grooves, the polishing element being fixed to the rotating shaft; a driving unit for driving at least one of the rotating shaft and the workpiece in the vertical direction of the rotating shaft, in the horizontal direction of the rotating shaft, and in the direction along the side face of the grooves; and a detector for detecting the position where the polishing element is in contact with the workpiece.